

DOI: <https://doi.org/10.36489/saudecoletiva.2020v10i56p3292-3301>

# Implications for continuing treatment of hematological diseases during the COVID -19 pandemic

Implicaciones para la continuidad del tratamiento de las enfermedades hematológicas durante la pandemia del COVID -19

Implicações na continuidade do tratamento de doenças hematológicas durante a pandemia de COVID-19

## ABSTRACT

**Objective:** to describe an experience about the discontinuity in the treatment of hematological diseases during the COVID-19 pandemic, in a blood center in the state of Ceará. **Method:** This is a descriptive study, type of experience report carried out in the period of March 2020. **Results:** we report the experience of visits in hematological consultations, so that we can continue the service provided to patients who are dealing with hematological disorders, with measures to contain the transmission of COVID-19 during patient care. Thus, the Hematology and Hemotherapy Center of Ceará sought to promote preventive measures to contain the transmission of COVID-19 during patient care. Thus, the pandemic caused by the new coronavirus (SARS-CoV-2), caused a state of alert for health professionals. **Conclusion:** The practical activities developed aimed to establish a greater proximity between theoretical and practical knowledge, providing opportunities for scientific construction. The pandemic caused by the new coronavirus (SARS-CoV-2) is of great concern to health professionals, as well as the population.

**DESCRIPTORS:** COVID-19; Hematological diseases; Health Unic System; Outpatient care.

## RESUMEN

**Objetivo:** describir una experiencia sobre la discontinuidad en el tratamiento de enfermedades hematológicas durante la pandemia COVID-19, en un centro de sangre del estado de Ceará. **Metodología:** Se trata de un estudio descriptivo, tipo de relato de experiencia realizado en el período de marzo de 2020. **Resultados:** se reporta la experiencia de visitas en consultas hematológicas, para que podamos continuar el servicio brindado a los pacientes que están lidiando con trastornos hematológicos, con medidas para contener la transmisión de COVID-19 durante la atención al paciente. Así, el Centro de Hematología y Hemoterapia de Ceará buscó promover medidas preventivas para contener la transmisión del COVID-19 durante la atención al paciente. Así, la pandemia provocada por el nuevo coronavirus (SARS-CoV-2), provocó un estado de alerta para los profesionales de la salud. **Conclusión:** Las actividades prácticas desarrolladas pretendieron establecer una mayor proximidad entre los conocimientos teóricos y prácticos, brindando oportunidades para la construcción científica. La pandemia provocada por el nuevo coronavirus (SARS-CoV-2) es de gran preocupación para los profesionales de la salud, así como para la población.

**DESCRIPTORES:** COVID-19; Enfermedades hematológicas; Sistema único de Salud; Atención ambulatoria.

## RESUMO

**Objetivo:** descrever uma experiência vivenciada sobre a descontinuidade do tratamento de doenças hematológicas durante a pandemia de COVID-19, em um hemocentro do estado do Ceará. **Método:** Trata-se de um estudo descritivo, tipo relato de experiência, realizado no período de março de 2020. **Resultados:** relatamos a experiência dos atendimentos em consultas hematológicas, para que possamos dar continuidade ao serviço prestado aos pacientes que se tratam de distúrbios hematológicos. Deste modo, o Centro de Hematologia e Hemoterapia do Ceará buscou promover medidas preventivas para conter a transmissão da COVID-19 durante o atendimento dos pacientes. Deste modo, a pandemia provocada pelo novo coronavírus (SARS-CoV-2), ocasionou estado de alerta para os profissionais da saúde. **Conclusão:** As atividades práticas desenvolvidas pretenderam estabelecer uma maior proximidade entre o conhecimento teórico e o prático, oportunizando a construção científica. A pandemia provocada pelo novo coronavírus (SARS-CoV-2) traz grande preocupação para os profissionais da saúde, bem como para a população.

**DESCRIPTORES:** COVID-19; Doenças Hematológicas; Sistema Único de Saúde; Assistência ambulatorial.

RECEIVED ON: 08/18/2020 APPROVED ON: 08/29/2020

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**INTRODUCTION**

**O**n December 31st, 2019, in the city of Wuhan, in a Hubei province in China, an outbreak of pneumonia caused by the new coronavirus began. (1) Transmission occurs through direct contact between individuals through droplets through disseminated droplets, coughing or sneezing. (2)

Soon new imported cases of the infection emerged, being initially called by the scientists of 2019-nCoV, it did not take long, until on January 30th, 2020, WHO declared that the outbreak of the disease caused by the new Coronavirus, constituted itself as an Emergency of Public Health of International Importance (Emergência de Saúde pública de Importância Internacional - ESPIN). (3)

Thus, on March 11th, 2020, COVID-19 was characterized by WHO as a pandemic. In Brazil, the first confirmed case occurred on March 20th, 2020, in the city of São Paulo, through a traveler who had returned from Italy a few days ago, thus becoming the first confirmed case of the virus in Latin America. (4) Since then, cases of COVID-19 have only increased in Brazil and worldwide.

In the face of the great pandemic, world governments began to mediate to contain the new virus and, among them, the most important and which has been causing serious social and economic impacts, the social isolation that proved beneficial for the containment of the coronavirus, however, brought some impacts on people's lives, especially in the financial sphere. (5)

The coronavirus panel (6), updated on August 25th, 2020, it points out that Brazil has a total of 3.669.995 confirmed cases of the disease, with a total of 116.580 accumulated deaths. While in Ceará, the third state in the country with the highest number of cases, it has a total of 207.386 confirmed cases, followed by 8.339 deaths. The data continues to be updated daily, since ours continues to suffer from the effects of the pandemic.

The populations most vulnerable to the transmission of the virus are those who suffer the most social impacts, since they face financial difficulties, because their incomes are stopped, difficulties in accessing public transport and, consequently, weaknesses in the provision of public health services to continue their treatments.

The Hematology and Hemotherapy Center of Ceará, in partnership with the

Hospital Universitário Valter Cantídio, attends daily to hundreds of patients with various hematological diseases that affect a significant number of people from the Ceará population.

Due to the pandemic, the service had to reduce the number of outpatient consultations, which has caused great inconvenience to patients because they are people with serious illnesses, who need to continue their treatments on an uninterrupted basis and who cannot wait for the end of social isolation. Therefore, this study is relevant because it is a serious public health problem, since hematological diseases are serious and patients cannot have a long treatment interruption. It should be noted that blood collection, the exchange of medications and / or the use of chemotherapy under medical supervision are part of the continuity of treatment of these patients.

Based on these facts, the present study aims to describe an experience about the discontinuity in the treatment of hematological diseases during the COVID-19 pandemic, in a blood center in the state of Ceará.

## METHOD

This is a descriptive study, of the experience report type carried out in a reference center for hematological diseases in the state of Ceará, in the period from March 2020, on 3 different days, between 7 am and 6 pm.

During this period, the outpatient professionals were responsible for canceling the scheduled appointments of the patients seen at the outpatient clinic, through calls, in which the patient was informed about the appointment cancellation due to social isolation. Without the possibility of informing a new date for attendance.

The experience report is a descriptive research tool that presents a reflection on action or a set of actions that address a situation experienced in the professional sphere of interest to the scientific community. The methodological procedures used in the study use descriptive and exploratory research, as the researcher, when observing the phenomena, seeks to obtain results at the end of the research, which allow the understanding of these phenomena. (7)

To analyze the information, records were used in field diaries based on participant observation during the month of April, in order to understand how the treatment of hematological diseases continues at the study site during the COVID-19 pandemic.

The interpretation and discussion of the information was supported by the current scientific literature, for this, a paired search was performed (by two researchers) in the Scientific Electronic Library Online database (SciELO). The controlled descriptors were: "Hematological diseases", "Outpatient care", "Coronavirus" and "Social Isolation".

The bibliographic survey was carried out from March to May 2020. Articles that did not address the subject and that were not within the last 5 years were excluded.

## RESULT

To describe the experience, it is necessary to have an understanding of the scenario experienced by everyone since the

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first cases appeared in our state. The first cases appeared on March 15th, 2020, and at the same time social isolation was decreed in Ceará on March 16th, and the next day, schools and other establishments considered non-essential had to be closed due to the fight against the new coronavirus. As a result, health services had to adapt to the new routine, hospitals began to reduce the number of elective surgeries, and reorganized their beds to give priority to receiving patients with COVID-19 and, consequently, outpatient services resulted in reduced attendances.

Due to these circumstances, from March 17th to 19th, 2020, the hematology outpatient clinic of the Hematology and Hemotherapy Center of Ceará started to cancel the appointments of its patients. Soon, the service professionals endeavored to use the cell phone to cancel scheduled appointments for the subsequent week without a scheduled return date.

Initially on March 17th, the calls were made by several professionals in the sector, from 7 am to 7 pm. We started with the cancellation of consultations that would take place the next day. Some professionals reported that the work has become extremely tiring, as it is a delicate situation, since many patients did not understand the reason for canceling the appointments and used numerous arguments, such as the need for follow-up examinations to verify the number of platelets, leukocytes, among others, and also use of medication that needed to be changed or expired prescriptions.

On March 18th, the cancellation of consultations was continued, and the arguments of the patients became increasingly worrying, as many of these patients have hematological diseases and cannot stop treatment.

On the 19th, we continued with the calls, another day of rescheduling appointments, but this time with new information inserted in the process, which was passed on by the medical team. These related to patients who needed prescriptions, follow-up exams, or who were going to undergo chemotherapy, specifically they

could attend the consultations. Another relevant piece of information was that very elderly patients could send the tests by a relative or someone in charge, as doctors would receive them to check tests and also prescribe the necessary prescriptions for the continuity of treatment.

Social isolation extends to the present day, and although suffering a loosening with the reopening of trade, isolation measures continue to be extended in the state, in order to contain the progress of the coronavirus.

Most hematological diseases can lead to blood changes, making hematology a specialty of the most complex and transdisciplinary in medicine. (8)

Hematological diseases are highly prevalent in our country. According to the World Health Organization, only one hematological disease, iron deficiency anemia, affects almost 1,2 billion people worldwide and is considered the most common blood disorder worldwide. Iron deficiency anemia can lead to impaired growth, development of children and adolescents, in addition to contributing to reduced work capacity in adults. (9)

Most hematological diseases are called onco-hematological diseases. According to estimates by the National Cancer Institute José Alencar Gomes da Silva (10), diseases such as leukemias and lymphomas have a considerable mortality rate, close to 63% for leukemias, and 42% for lymphomas in Brazil, which makes prior diagnosis a key component in achieving success in the treatment of these diseases.

Patients with suspected hematological diseases, need access to specialized care to observe early diagnosis and rapid treatment. In public health, primary health care is the most responsible for the follow-up of patients to specialized outpatient clinics with hematology care. Primary care physicians make requests for care in specialized units, which in turn could be prepared to treat the simplest diseases and which involve less relevant resources for investigation and treatment. (11, 12, 13)

Most pathologies require access to large hospitals with several medical specialties,

subspecialties and multidisciplinary teams. Assistance services, called tertiary or quaternary, have a teaching and research structure, in addition to having a great diversity of technical resources and equipment for the diagnosis and treatment of more serious diseases, which require a structure highly equipped with hospital beds, intensive care units, bone marrow transplant units, day hospital, emergency care, hemotherapy and laboratory support. (14)

Merula Steagall (15), president of the Brazilian Association of Lymphoma and Leukemia (Associação Brasileira de Linfoma e Leucemia - ABRALE), says that “the coronavirus pandemic has a direct impact on the health system in Brazil. We know that the difficulties are many, and that countless people are suffering from the symptoms and worsening of COVID-19. They all deserve to be treated and, therefore, every care is necessary so that respirators, beds, supplies, medicines are not lacking”.

Faced with the threat of more than 625,000 new cases of cancer in Brazil this year, Steagall warns: “Diagnosing the disease early on remains essential. Treat the disease, too. And during the coronavirus, how is this patient? Cancer does not wait. According to the Brazilian Society of Clinical Oncology (Sociedade Brasileira de Oncologia Clínica - SBOC), patients with blood tumors, comolinfomas, multiple leukemias and myeloma may be more vulnerable to the new coronavirus, due to the treatment that lowers immunity. Not all cancer patients are immunosuppressed, but it is still essential to take every precaution to avoid infection. (16)

According to Bonicilha(18), as a priority, the risk-benefit of changing the current standards of care for patients should be considered, for example, chemotherapy spacing, phlebotomies, access to hospitals for medication withdrawals in an attempt to reduce the exposure of these people to COVID-19. Also according to the author, to minimize the contact of these people to the virus, one must try to establish effective ways of contact with patients to manage situations that avoid unnecessary physical exposures, such as updating the phone,

e-mail. Consultations must be carried out by telephone or videoconferences.

In partnership with the Brazilian Association of Hematology, Hemotherapy and Cell Therapy (Associação Brasileira de Hematologia, hemoterapia e terapia celular ABHH), and the Scientific Department of Hematology of the Brazilian Society of Pediatrics (Sociedade Brasileira de Pediatria - SBP), they released a warning note with recommendations to assist health professionals in the care of children and adolescents with benign hematological diseases, during the COVID pandemic 19. The document points out that patients with hematological diseases are among the group of people most likely to develop the severe form of COVID 19. (19) The document also provides suggestions for adequate outpatient follow-up and treatment of patients with benign hematological diseases. Here are some recommendations adopted by the alert note: Maintain the necessary clinical and laboratory controls; Wash your hands with soap and water or gel alcohol and wear a surgical mask during your stay at the clinic; Avoid unnecessary physical contact; Avoid closed environments and agglomerations; Routine medication prescription: delivery to the family must be combined according to the logistics of each service; Stable patients, uneventful due to the underlying disease and the medication (s) used, should have their appointments rescheduled after telephone contact to find out how they are doing. (19)

## CONCLUSION

Knowledge about the coronavirus pandemic is in process and studies are being published continuously. There are scientific updates every moment. In the face of a disease that is still being studied by the scientific community, it is important that everyone follow the information and recommendations from the Ministry of Health and other health authorities, as the epidemic scenarios are dynamic, differentiated and require permanent asses-

sment of behaviors and procedures. The pandemic caused by the new coronavirus (SARS-CoV-2) is of great concern to health professionals, as well as the population.

The objectives of the study were achieved, since we report the experience of attending a service specialized in hematological consultations, where we

need to give special attention to patients, so that we can continue the service provided to people who are dealing with hematological disorders, being that care cannot be discontinued by observing some peculiarities and outlining measures to contain the transmission of COVID 19 in these patients.

The practical activities developed were intended to establish a greater proximity between theory and practice. The experience report, provided a significant learning through the scientific evidence, giving opportunity to the construction of the knowledge. ■

## REFERENCES

- Hui, DS. et al. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health — The latest 2019 novel coronavirus outbreak in Wuhan, China. *International Journal of Infectious Diseases*, v. 91, p. 264-266, 2020.
- Rothan, HA, Byrareddy, SN. The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak. *Journal of Autoimmunity*, v. 26, 2020.
- BRASIL, Secretaria geral da presidência da república- imprensa nacional. Portaria N. 188, de 3 de fevereiro de 2020. Diário oficial da união- publicado em: 04/ 02/2020. Edição:24-A. Seção 1. Disponível em: <https://www.in.gov.br/web/dou/-/portaria-n-188-de-3-de-fevereiro-de-2020-241408388>. Acesso em 25 de agosto de 2020.
- Brasil Atual. Coronavírus: Brasil tem o primeiro caso confirmado. Saiba o que fazer. Disponível em: <https://www.redebrasilatual.com.br/saude-e-ciencia/2020/02/coronavirus-brasil-caso-confirmado/>. Acesso em 11 de abril de 2020.
- Bezerra, VCA; Silva, MEC; Soares, GRF; Silva, MAJ. Fatores Associados ao comportamento da população durante o isolamento Social na Pandemia de COVID-19. *Ciências e Saúde Coletiva*, v. 25, suppl. 1, p. 2411-2421, 2020.
- Brasil, Painel Coronavírus. 2020. Disponível em: <<https://covid.saude.gov.br/>>. Acesso em: 25 jul. 2020.
- Fachin O. Fundamentos de metodologia: Noções Básicas em Pesquisa Científica. 6.ed. São Paulo: Saraiva; 2017.
- Failace, R. Hemograma: manual de interpretação. 6. ed. São Paulo: Artmed Editora; 2015.
- Kassebaum NJ, Jasrasaria R, Naghavi M, Wulf SK, Johns N, Lozano R, et al. A systematic analysis of global anemia burden from 1990 to 2010. *Blood*, 2014; 123(5), 615-24.
- Rede Brasil Atual. Coronavírus: Brasil tem o primeiro caso confirmado. Saiba o que fazer. Disponível em: <https://www.redebrasilatual.com.br/saude-e-ciencia/2020/02/coronavirus-brasil-caso-confirmado/>. Acesso em 11 de abril de 2020.
- Instituto Nacional de Câncer José Alencar Gomes da Silva. [Acesso em 2020 mai 20]. Disponível em <https://www.inca.gov.br/tipos-de-cancer/leucemia>.
- Spedo SM, Pinto NRS, Tanaka OY. O difícil acesso a serviços de média complexidade do SUS: o caso da cidade de São Paulo, Brasil. *Physis*. 2010; 20(3): 953-72.
- Tanaka, Oswaldo Yoshimi, Drumond Júnior, Marcos. Análise descritiva da utilização de serviços ambulatoriais no Sistema Único de Saúde segundo o porte do município, São Paulo, 2000 a 2007. *Epidemiol. Serv. Saúde* [periódico na internet] 2010 Dez [Acesso em 2020 Jun 11]; 19(4): 355-366. Disponível em [http://scielo.iec.gov.br/scielo.php?script=sci\\_arttext&pid=S1679-49742010000400006&lng=pt](http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S1679-49742010000400006&lng=pt).
- Adler MS, Gallian DMC. Escola médica e Sistema Único de Saúde (SUS): criação do curso de medicina da Universidade Federal de São Carlos, SP, Brasil (UFSCar) sob perspectiva de docentes e estudantes. *Interface (Botucatu)* [periódico na internet]. 2018 Mar [Acesso em 2020 Jun 11]; 22(64): 237-249. Disponível em [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1414-32832018000100237&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1414-32832018000100237&lng=en).
- Gabriel MO, Zanquetto Filho H, De Oliveira MPV. As unidades básicas de saúde na rede de saúde de Vitória-ES. *RAHIS*. 2015; 12(4): 34-48.
- Abrale, Associação Brasileira de linfoma e leucemia lança portal sobre Covid-19. S.O.S Coronavirus de 07 de maio de 2020. Disponível em: <https://www.abrale.org.br/abrale-na-midia/associacao-brasileira-de-linfoma-e-leucemia-lanca-portal-sobre-covid-19/>. Acesso em 20 de jul. 2020.
- Mendes J, Bittat O. Perspectivas e desafios da gestão pública no SUS. *Rev. Da Facul de Ciên. Méd Sorocaba* [ periódico na internet]. 2014 [ Acesso em 2020 Jun 11]; 16 (1): 35-39. Disponível em <https://revistas.pucsp.br/RFCMS/article/view/18597>.
- Barreto LM, Torga JP, Coelho SV, Nobre V. Principais características observadas em pacientes com doenças hematológicas admitidos em unidade de terapia intensiva de um hospital universitário. *Rev. bras. ter. intensiva* [periódico na internet]. 2015 Set [Acesso em 2020 Jun 11]; 27(3): 212-219. Disponível em [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0103-507X2015000300212&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-507X2015000300212&lng=en).
- Bonicenha ZJ. Coronavírus e paciente hematológicos: O que precisamos saber? [acesso em 2020 mai 21]. Disponível em <https://pebmed.com.br/coronavirus-e-pacientes-hematologicos-o-que-precisamos-saber/>.
- ABHH, Associação Brasileira de Hematologia, Hemoterapia e terapia Celular; Recomendações a profissionais de saúde que atendem pacientes pediátricos com doenças hematológicas benignas durante a pandemia de COVID-19. Nota de alerta, Sociedade Brasileira de Pediatria (SBP), 2020.